

Relevance of MIS To The Management Accountant

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Abstract

This paper poses the challenges that is facing the accounting profession in the information technology era of today and the future. The organizational information that is needed by management must be of value and substance and this requires the use of computer technology by the accountants. Thus, time has come for the accountants to check their functions and roles in the information-based management. The accounting profession like any other is cautious in undertaking drastic changes to their accounting skills and curriculum and this might endanger their existence in the not distant future.

Abstrak

Kertas ini mengutarakan cabaran yang dihadapi dalam kerjaya perakaunan dalam era teknologi maklumat sekarang dan masa depan. Maklumat organisasi yang diperlukan oleh pengurusan mestilah bernilai dan bermutu. Ini memerlukan penggunaan teknologi komputer oleh para akauntan. Oleh itu masanya telah tiba bagi para akauntan untuk menyemak fungsi dan tugas mereka dalam pengurusan berasaskan maklumat. Seperti kerjaya lain, kerjaya perakaunan sangat berhati-hati dalam sebarang perubahan yang melibatkan kepakaran dan kurikulum perakaunan. Ini mungkin membahayakan kewujudan mereka dalam jangka waktu yang pendek.

Keywords : *Management Efficiency, Management Information Systems, Information-based Management, Management Accountant Skills, Kaizen.*

1. Introduction

Malaysian commodity prices crashed in 1985 - 1986. The country must move reliance on primary commodities of rubber, tin, palm oil, petroleum exports towards manufacturing or industrial revolution of some kind. These bad times were evidenced by much bankruptcy of business institutions especially financial institutions. This decade must be the industrial decade where with more privatisations, the private sector must identify and exploit investment opportunities that will generate growth and development, create more value added to our commodities which will then create more job opportunities and at the same time insulate the country from future economic downturn.

In 1990, economic growth is expected to be 71% and the average for the decade should be around 5%. The figures for major exports in 1989 showed that processed goods have already exceeded unprocessed goods by 21% and with the current drive this figure will be even bigger into the 1990s.

Industrialisation does not only mean the production of finished processed goods and those for which value added has been made but also mean, the alteration of extractive process or growth processes which are made more efficient in all aspects, costs, wastage, duration, quality, timing, etc. In other words, the industry itself, changes from the manner it does things in the past decades to the methods that is more sophisticated mechanically (or electronically), in line with the growth and maturity of the nation. This definition is more exciting because this then sets into motion the need to be dynamic in all aspects of the industries in this country.

This paper firstly deals with management as is currently practiced and its probable changes into the future, and the place of information and technology associated with it in the greater scheme of things of management and lastly the importance of such changes to the accountant and the steps he has to take from now in order to remain valid corporate players of the future.

2. The Degrees of Efficiencies of Management

Management can be taken to mean a group of related management work made up of activities that are closely related to one another and that have common characteristics derived from the essential nature of work. These activities have been described as planning, organising, leading and controlling. By this definition then, management in itself has a different set of functions which differs from those that are carried out in a manager's functional areas, for example, a marketing manager does the marketing functions which is a technical function normally identified with customers or clients, determining their needs and wants, creating demand, selling and servicing sales so that they are continuously satisfied and that referrals are ensured. Thus the technical activities under marketing are market research, advertising, promotion, field sales, sales service etc.

However, in carrying out the marketing functions, a manager also concurrently does management activities, just as an engineering manager, in carrying out engineering functions will also concurrently do management activities. It would seem that throughout an organisation, all levels of personnel will do a certain degree of management work, where those at the top will do a greater proportion of management work and less functional work whilst those at the bottom will do more, vice versa. The lowest level in the hierarchy, the workers definitely manage their time or that their management functions are done on their behalf by someone else.

The detail activities for each of the management functions are as the following: planning covers forecasting, developing objectives, programming, scheduling, budgeting, developing policies and procedures; organising entails developing organisation structure, delegating and developing relationships; leading necessitates

decision making, communicating, motivating, selecting and developing people; and finally controlling requires developing performance standards and measuring, evaluating and correcting such performances.

The common denominator in all management functions is the financial information that permeates through out the organisation. All operational data and information can be translated into financial information. Thus, the importance of accountants and accounting types in any organisation. This importance owing to management and also compliance to legal requirements in the form of various acts of parliament has transformed this staff function of accounting into one of certain existence in any commercial organisation of substance.

Organisations are well managed because as a group, the management team has been able to carry out the management function very well and this function has become a culture in the organisation, to a degree that individuals individually have a lesser impact on the organisation than individuals as a group. In other words, the sum of the individual parts of the organisation exceeds the individual parts themselves.

Organisation that does not succeed in this country are usually associated with lack of ethical standards, rather than anything else be it government organisation or private organisations. This is especially true at times of recession which proceed periods of boom. Alternatively, such lack of ethical standards are usually coupled with multiplicity of problems, all of which are management function related. In simple terms, there are lack of clarity about roles, deficiencies in investment planning, diffusion of controlling authority, lack of professionalism, absence of evaluation criteria, lack of adequate monitoring; all of which can be placed within the detail activities as mentioned above.

Reflecting upon the above two extremes, success or failure are really dependent upon the achievement (or lack of) of objectives set. For the private sector, the bottom line is important and management will work conscientiously towards its achievement. For the public sector, the provision of service is the main intention. In both cases, the efficient function of the machinery must be supported by the availability of data and information at all stages of management, from planning to control. Such information must be accurate, timely and meaningful to the users in management.

3. Management Information System (MIS)

Computers have existed some 40 years ago. Before that time, accountancy has already existed as a mechanism to collect data on business transactions. It is a means to inform management the status of the business. The existence of computers has helped tremendously in the collecting, recording, tabulating of data into meaningful information. In fact, we can now refer to this age as the information age and most jobs are now information intensive. We cannot exist to perform jobs without information. Accountants, lawyers, engineers, managers etc all handle great amounts of information and as we approach the year 2000, already the 'physical' elements of a factory worker or farmer are getting much enhancements with information. In fact, since 1970, 90% of jobs created in the

USA are information, knowledge or service base, compared to 5% in manufacturing. As we become developed, we will probably follow this trend.

MIS is any system which provides information related to operations to people in an organisation. It supports the work done by employees, owners, customers and any other persons by providing them meaningful, accurate and timely information. This function has been called various names; data processing, management computer system, information reporting systems, decision support system, information management and information resource management. Current textbooks has divided MIS into 4 distinct but overlapping areas namely, transaction processing systems, information reporting systems, decision support systems and office automation.

Transaction processing systems (TPS) comprise of the routine, daily accounting and non-accounting operations that are the paperwork processing operations linked to individuals, departments and hierarchy of the organisation covering accounts receivable, accounts payable, production, warehousing and inventory control etc. This system is the basic building block of any MIS and is designed to keep an organisation running smoothly, cost effective and cost efficient by automating the voluminous amounts of work that must be handled daily. The system will accurately record all transaction as well as ensure that the data remains integrated through systems of control which must extend throughout the organisation.

For the accountants, the TPS are essentially book-keeping, issuance and control reporting. Briefly, book-keeping involves keeping accurate records of the organisations business transactions using generally accepted accounting principles. Issuance refers to the production of documents such as invoices, delivery notes, customers monthly statements, pay cheques etc which are necessary functions for effective operation of the company and control reporting are essentially by-products of TPS which serves as operations control. These are edit reports, batch control reports, daily transaction reports, error reports, exception reports etc which validates data entering into the TPS.

Technology is very pronounced in TPS because data becomes voluminous as systems become sophisticated. In the earlier systems, data are usually captured on paper and transferred into computer form via the keyboard. This is still done extensively although it is getting expensive and are usually contracted to countries where costs are cheaper. However, there are problems such as error levels, temporary or permanent loss of data, labor intensity, fluctuating levels of service and slowness. The trend is towards mechanical capture of data directly into the system through bar codes, optical reader and computer recognition writings etc. This eliminates nearly all the problems mentioned and enhances services.

Examples of transaction processing systems are payroll, order entry, invoicing despatch, amounts receivable, purchasing, receiving, inventory control, accounts payable and the general ledger.

Information reporting system (IRS) provides predefined information to management. These are usually hard copy details for lower and middle managers,

summaries for senior management and exception reports to departments on regular or on demand basis. Other properties are the reports support structured or service-structured decisions, the information are generated in established formats, its generation are done in a formal scheduled manner, the information generated are internal in nature and are historical often compared with budget information or performance of previous periods.

Decision support system (DSS) is a system that assists managers in solving problems that are unstructured, thus requiring unstructured decision making. It also has much flexibility in the use of information as well as the generation and manipulation of information. It must be easy to use and developed for non-computer professionals, have high degree of user friendliness, control and interaction. In other words, DSS are focused as a top management use, must be interactive, realtime, multiprocessing with interactive display using numbers and graphics and can use models and tools of various disciplines. Normally, the users themselves must be the creators of this system by first retrieving the correct and useful information from those databases that exist within and outside the organisation. These information need to be manipulated and reconfigured by sorting field exchanging and joining. The information are then analysed using statistical and optimising tools and in some cases simulation techniques. It is not surprising that there exist today numerous packages for use from data base management systems with fourth generation languages, to spreadsheets and modeling packages which have been created for specific industrial uses.

Lastly, office automation (OA) is the name given to hardware and software technological developments used in the office environment which will make the office workers more productive and effective. Generally, these covers the use of equipment such as computers, LANs, fax equipment teleconferencing and inhouse television and communication equipment and the use of the softwares such as wordprocessing, desktop publishing, electronic mail and desktop organisers. The office environment is made integrated for which distance is not considered a problem anymore and paperwork is lessened

4. Information Based Management

From the above, it is clear that in the future competent management need to be proficient in the usage of information that are financial and technical in nature. We have not discussed the technical aspects of computers in detail. Suffice to say that in order to fully comprehend and optimise information, the technical capabilities of the system must be fully understood as well.

From management, let us now examine the next step in the existence of an organisation, which is the managing of strategies. As we know, strategies undertaken by management today will be the realities of tomorrow. It is that stream of continuous decisions and actions which lead to the development of steps to the achievement of objectives. In the future, strategies will be information driven. This means the organisation which can effectively use information to shape its strategies will be the most successful.

We have already seen the existence of information in the office environment and this extends into all the functional areas. In marketing, perception of the consumer

is just changing. For example, before the 70's, the consumer is viewed as one mass audience which have general or near similar needs. The marketers provided products of limited features. This condition changed in the 70's as the market became more segmented with high, middle and low end tastes. Thus, the market responded with feature-price mix products. In the 80's and 90's, the higher economic well-being of the nation resulted in the abandoning of the lower end market and further greater fragmentation of the market into niche or matrixed perception. The marketers need to respond with specific products for each niche.

The same case will exist for the other areas of marketing. This leads to manufacturing. There will exist a demand for constantly changing of products as well as improvements to the present products. In fact, these already exist a body of knowledge called *accounting for continuous improvement*. (*Kaizen*). In other words, manufacturing excellence can be achieved by making continuous improvements in areas of inventories, quality, scrap, overheads and product-output-time. In order to do this, there need to be a coherent working and coordination between all departments in the organisation say between manufacturing, engineering, marketing and accounting. Certainly, the philosophies associated with the four main functional areas mentioned above have changed as were the marketing perception of its consumers. In the 70's, manufacturing had batch production with maximum volume in each batch, inventory buffers to prevent stock out, scrap and reworked are expected and the workers are its focus. Engineering concerned itself with designs that are convenient for engineering and the elimination of direct labour. Accounting worked on cost recoveries through pricing with expected long product life cycle. All these changed in the 80's. Manufacturing now becomes a continuous flow in nature with total people involvement and continuous improvement. Waste and excess inventory is eliminated. Engineering, designs for manufacturing and enhancement of customer value and needs. Accounting provides information for continuous improvement. Accounting has thus become a facilitator of information, financial and otherwise to help in the continuous improvements.

In order to do this, the accountant has to be proactive by providing the latest financial and non-financial information and measures of efficiency, also he must be technically sound on the latest development in the manufacturing field for which the impact can be transferred to his manufacturing environment. Today, as we speak, changes in the manner of production, components availability, design techniques etc are getting more efficient. Those, for which we think to be impossible before can now be done. For example, a phone which requires 136 components can now be reduced to less than 30. Imagine the savings that can be made. Products that have to be prototyped for testing, can now be fully tested using computer simulation. All is possible.

This brings me to the notion that items taught in the 70's and the 80's on costing and to some extent, management accounting becomes inadequate. Now we have just-in-time, total-quality-control, activity-based-costing, manufacturing resource planning etc, all of which represented new innovative applications made possible only as a direct result of the existence of information in real time.

5. A Reflection

Let us now reflect upon our business environment. Firstly, management and management accounting will be information-base driven. Clearly transaction processing and information reporting will be inadequate and probably too, these functions will be the domain of the lowest level in the organisation structure. The senior management's focus will be to create new information or creative use of the present information available so as to plan and make strategic decisions for the organisation. The manager will be doing informational roles and must be able to communicate such information effectively.

Secondly, managers cannot ignore the organisation's external environment both local as well as international. Any changes and innovations occurring elsewhere will have a direct and indirect impact on the organisation. Making note of such changes as well as implementing them in one's organisation can be advantageous in the short and long run.

Thirdly, technology both computer-based and otherwise has direct impact on the operations of the organisation especially on costs. Although manpower cost in Malaysia is still relatively cheap, this cost advantage is quickly eroding because of raising living standards as well as cheaper technology being available presently.

Fourthly, management as individuals and a structure must exhibit flexibility in the manner functions are carried out as well as individual skills. It is not expected that accountants will become engineers but the overlapping must need to exist closely so that one can fully understand the impact of another's functions on the organisation.

6. Management Accountant Skill : A Re-Examination

It is probably correct to say that conservatism runs high in the accounting profession and change is often perceived as blasphemous. But if the profession were to maintain its rightful place in the organisation, then it must change. Otherwise accountants will be relegated to a position necessary for the fulfillment of legal requirements, and management will be done by management professionals.

We begin by adapting into the curriculum the current developments occurring in the business environment. This is possible if the lecturers themselves have a positive attitude towards changes, learning from books and journals as well as doing research and consultancy in these areas. However, there may be inadequate subjects or hours in any one program for this happen. This is because much of the study has been devoted to traditional areas of accounting such as audit, tax, financial accounting and management accounting.

Secondly, accountants should consider post-graduate degrees as part of their career and self-development. As the business environment becomes very competitive, the scope as well as depth of subjects under business and management and inter-relationships seem to be growing daily. The fact remains that most professional accountants do not do post-graduate studies and remain contented in their specialised field.

Thirdly, knowledge in computers must be enhanced to a degree equivalent to those of a systems analyst and programmer. In this, I may be putting an unnecessary condition because each profession has its place in the business environment. However, if we agree at the relevance and growing importance of information thus computers, then the future benefits override the difficulties faced.

Furthermore, I think the difficulties are really only a sense of disproportion. Initially, one must purchase a microcomputer and learn all the packages available such as word processing, spread sheet and simple data bases. Next, one must work on accounting packages and implement at least in two businesses. Consequently, one must begin work on 4th generation languages such as DBASE, OMNIS etc which necessitates creating a system and implementing it. Lastly, at this stage, one will be able to participate in a full system set up from systems design, programming using 4th generation languages and CASE to documentation and implementation. The first cycle will be a difficult learning experience but after that the matter will become routine.

7. Conclusion

I know I have made the matter simplistic but I feel it is so. The choice to be made is clear, either participate in the changes that will eventually occur or accept the fact that the lack of knowledge will be the source of our shortcomings. It is better to take steps now rather than later because time is still available.

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